
PART I - ADMINISTRATIVE

Section 1. General administrative information

Title of project

O&M Of Yakima Phase Ii Fish Facilities

BPA project number: 9503300

Contract renewal date (mm/yyyy): 1/2000 ☐ **Multiple actions?**

Business name of agency, institution or organization requesting funding

US Bureau of Reclamation

Business acronym (if appropriate) USBR

Proposal contact person or principal investigator:

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NPPC Program Measure Number(s) which this project addresses

7.4K.1

FWS/NMFS Biological Opinion Number(s) which this project addresses

N/A

Other planning document references

N/A

Short description

Operate and maintain BPA owned Yakima River basin Phase II anadromous fish passage, protection and trapping facilities.

Target species

Spring & fall chinook, steelhead, bull trout.

Section 2. Sorting and evaluation

Subbasin

Evaluation Process Sort

CBFWA caucus	Special evaluation process	ISRP project type
Mark one or more caucus	If your project fits either of these processes, mark one or both	Mark one or more categories
<input checked="" type="checkbox"/> Anadromous fish <input checked="" type="checkbox"/> Resident fish <input type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Multi-year (milestone-based evaluation) <input checked="" type="checkbox"/> Watershed project evaluation	<input checked="" type="checkbox"/> Watershed councils/model watersheds <input type="checkbox"/> Information dissemination <input checked="" type="checkbox"/> Operation & maintenance <input type="checkbox"/> New construction <input type="checkbox"/> Research & monitoring <input type="checkbox"/> Implementation & management <input type="checkbox"/> Wildlife habitat acquisitions

Section 3. Relationships to other Bonneville projects

Umbrella / sub-proposal relationships. List umbrella project first.

Project #	Project title/description

Other dependent or critically-related projects

Project #	Project title/description	Nature of relationship
9107500	Yakima Phase II Screen Construction	Funding source for design and construction of Phase II facilities by USBR.
9200900	Yakima Screens - Phase II O&M	Funding source for O&M of Phase II facilities by Washington Dept of Fish & Wildlife. Phase II facilities O&M is done through a cooperative effort between USBR and WDFW.
9105700	Yakima Phase II Screen Fabrication	Funding source for fabrication of Phase II facility drumscreens by Washington Dept of Fish & Wildlife.
8506200	Passage Improvement Evaluation	Funding source for monitoring and evaluation of the effectiveness of Phase II facilities by Battelle Pacific NW Laboratories.

Section 4. Objectives, tasks and schedules

Past accomplishments

Year	Accomplishment	Met biological objectives?
	Successful O&M of facilities from 1992 through present.	Yes

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Perform facility O&M to quickly pass and protect fish moving through facilities, to maximize the useful life of facilities, and to protect BPA's capital investment.	a	Closely monitor facilities for proper operation, and make corrective equipment and flow adjustments as needed to maximize fish passage efficiency and protection.
		b	Provide a comprehensive facility maintenance and repair program.

Objective schedules and costs

Obj #	Start date mm/yyyy	End date mm/yyyy	Measureable biological objective(s)	Milestone	FY2000 Cost %
1	10/1999	9/2000	N/A	N/A	100.00%
				Total	100.00%

Schedule constraints

Phase II facility construction will continue until the year 2003. USBR's actual O&M work schedule and associated costs will depend on how quickly new facilities are added.

Completion date

No completion date - O&M needs will continue for the life of these facilities.

Section 5. Budget

FY99 project budget (BPA obligated): \$220,000

FY2000 budget by line item

Item	Note	% of total	FY2000
Personnel	1 FTE	%42	41,600
Fringe benefits	20% of personnel costs	%8	8,320
Supplies, materials, non-expendable property		%5	5,000
Operations & maintenance		%0	
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		%0	
NEPA costs		%0	
Construction-related support		%0	
PIT tags	# of tags:	%0	
Travel		%0	
Indirect costs	25% of personnel costs	%10	10,400
Subcontractor	Wapato Irrigation District	%25	25,000
Subcontractor	Roza Irrigation District	%2	2,000
Subcontractor	Athnam Irrigation District	%5	4,700
Other	Utilities	%3	2,500
TOTAL BPA FY2000 BUDGET REQUEST			\$99,520

Cost sharing

Organization	Item or service provided	% total project cost (incl. BPA)	Amount (\$)
		%0	
		%0	
		%0	
		%0	
Total project cost (including BPA portion)			\$99,520

Outyear costs

	FY2001	FY02	FY03	FY04
Total budget	\$105,000	\$110,000	\$115,000	\$120,000

Section 6. References

Watershed?	Reference
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<input type="checkbox"/>	
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PART II - NARRATIVE

Section 7. Abstract

Yakima River basin anadromous fish populations once supported significant tribal and non-tribal harvests. However these populations have declined to where only minimal tribal harvests are allowed, and to where some stocks may be headed for eventual extinction without intervention. Because of these declines, substantial high quality lightly used anadromous fish habitat exists within parts of the Yakima River basin. BPA has chosen to make investments in the Yakima basin to take advantage of this lightly used habitat to mitigate habitat losses elsewhere in the Columbia River system. One such investment has been the Yakima Phase II fish facility construction program. These new facilities provide screening for previous unscreened water diversions, and replace antiquated facilities that do not meet current standards for protecting anadromous fish. It also includes the Roza Dam adult fish trapping and counting facility. Twenty-nine structures have been constructed to date, with a total of approximately 60 planned for completion by 2003. The USBR in cooperation with the Washington Dept. of Fish & Wildlife has contracted with BPA to provide a comprehensive O&M program that will optimize the passage and protection of fish moving through these structures, and that will maximize the useful life of these facilities and protect BPA's capital investment. This proposal provides funds for USBR's portion of these O&M activities. The Yakama Indian Nation, Battelle Pacific NW Laboratories, WDFW, and NMFS will monitor biological results as part of their work tracking the success of the Yakima River Basin fish enhancement program.

Section 8. Project description

a. Technical and/or scientific background

This project involves providing a comprehensive operation and maintenance program for USBR's Phase II tasks. Considerable attention and a high quality O&M program is required to maintain optimum fish passage flows through structures, and to maintain the close fish screening tolerances required to protect anadromous fish at all life stages. Newly emerged fry are very small and easily slip through gaps in screen seals. Sites require regular visits to verify that equipment is operating properly and that fish bypass gates are correctly adjusted for canal flows. Improper settings resulting from equipment breakdown or constantly changing canal flows can cause weaker fry to become impinged on screens, carried over the top, and thus lost in deadend canal systems. A good

maintenance program will also assure a long useful life for these facilities and protect BPA's capital investment.

b. Rationale and significance to Regional Programs

This project is being funded by BPA as part of plan to mitigate habitat loss elsewhere in the Columbia River system. It is very important part of a larger program to restore anadromous fish runs in the Yakima River basin. Funds are used for O&M of Phase II facilities built by BPA to prevent fish from moving into and thus being lost in dead-end irrigation system waterways. Good results in other BPA funded Yakima Basin restoration programs will be compromised if fish are not protected at these Phase II sites by a comprehensive operation and maintenance program.

c. Relationships to other projects

The Yakima Phase I fish facility construction program which took place from 1985 through 1990 provided for screening major Yakima River Basin irrigation diversions, whereas the current Phase II construction program started in 1992 provides for screening of minor diversions. BPA funded most Phase I design and construction costs whereas USBR is funding all Phase I O&M costs. BPA is funding all Phase II construction and O&M costs. Both projects work together to provide protection for anadromous fish moving through Yakima River Basin waterways.

d. Project history (for ongoing projects)

Participation by USBR in the O&M of Phase II fish facilities began immediately after the first site came on-line in 1992. Twenty-nine structures have been constructed to date, with approximately 60 planned for completion by 2003. BPA is assigning custody of these sites to USBR as they come-on line. To the extent practical USBR is passing day-to-day O&M duties over to the Washington Dept. of Fish & Wildlife. USBR assists WDFW with administrative assistance and specialized craft and equipment support when requested. USBR has retained full O&M responsibilities of 4 fishscreen sites plus the Roza Dam adult trap. BPA reimburses both USBR and WDFW for all costs. USBR's Phase II O&M costs for the last four years have averaged approximately \$102,000/year.

e. Proposal objectives

1. Provide a comprehensive O&M program for BPA owned Yakima Phase II fish facilities that will assure the quick passage and protection of fish moving through facilities, and that will maximize the useful life of facilities and protect BPA's capital investment. Measurable biological results will be monitored and reported by other agencies and organizations, including the Yakama Indian Nation, Battelle Pacific NW Laboratories, Washington Dept. of Fish & Wildlife, and National Marine Fisheries Service.

f. Methods

O&M tasks assigned to USBR are accomplished using USBR personnel and equipment, and through subcontracts with impacted irrigation districts. USBR also provides administrative and specialized craft & equipment support for tasks assigned to the Washington Dept. of Fish & Wildlife. Sites are visited on a regular schedule by field maintenance personnel or contractors to adjust gate settings for optimum fish passage, to lubricate and inspect equipment for proper operation, make repairs if needed, and clean trashracks. Maintenance checksheet items are completed and logged as appropriate. Once sites are dewatered for the winter, crews replace screen sideseals and perform other tasks needed to assure that facilities will operate reliably during the next irrigation season.

The quality of the facility maintenance program is monitored by supervisors and through USBR's formal Review of Operation & Maintenance (RO&M) program wherein a team of Regional and Yakima Projects Office engineers visits each site once every 3 years to report on and make maintenance recommendations. Spot monitoring of sites for optimum fish protection is done by USBR supervisors and biologists, and by WDFW fisheries personnel. Biological results are being monitored and reported by other agencies and organizations, including the Yakama Indian Nation, Battelle Pacific NW Laboratories, Washington Dept. of Fish & Wildlife, and National Marine Fisheries Service.

g. Facilities and equipment

USBR's Yakima Projects Office has a large well-established program created for O&M of Phase I fish facilities that is easily able to absorb Phase II work without additional expansion. This program operates out of a large maintenance shop set up for drumscreen overhaul, metal fabrication, machining, woodworking, electrical repair, gearbox and hydraulic systems overhaul, plus sandblasting, and painting. The program also has several service trucks for on-site O&M tasks, plus 2 dumptrucks, 2 backhoes, 1 trackhoe, 1 front-end loader, 3 cranes, 3 boomtrucks, plus various other equipment such as manlifts, trailers, portable welders, air compressors, and generators. No additional facilities or equipment are needed.

h. Budget

Personnel costs are based on assigning an average of 1 FTE in craft personnel to accomplish the work. USBR does not charge directly for use of vehicles, equipment, tools, or shop space, rather those costs are recovered through indirect charges calculated at 25% of personnel costs. Subcontractor costs cover billings by irrigation districts for subcontracted Phase II work.

Section 9. Key personnel

No one is directly employed on this project. Rather this work is accomplished as part of a larger USBR Yakima Projects Office fish facility maintenance program. The Yakima

Projects Office has a staff of approximately twenty craft personnel and supervisors who's primary skills and responsibilities are O&M of fish facilities, plus staff engineers, biologists, and other professionals who are available when needed. Phase II tasks require approximately 1 FTE in personnel time.

Section 10. Information/technology transfer

Biological results are being monitored and reported by other agencies and organizations, including the Yakama Indian Nation, Battelle Pacific NW Laboratories, Washington Dept. of Fish & Wildlife, and National Marine Fisheries Service. Also, the Yakima Technical Work Group (TWG) serves as a forum for sharing information. This workgroup is made up of engineers, biologists, irrigators and other interested persons and organizations (including BPA and USBR). It meets several times during the year to provide Yakima river basin fish program oversight and to discuss project progress and direction, including reviewing new information arising out of site O&M activities.

Congratulations!